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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/648,141	08/25/2003	Susan Hares	41434-8001.US00	3245
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PERKINS COIE LLP P.O. BOX 2168 MENLO PARK, CA 94026			EXAMINER HOTELLING, HAROLD A	
			ART UNIT 2164	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

mn

<b>Office Action Summary</b>	<b>Application No.</b> 10/648,141	<b>Applicant(s)</b> HARES, SUSAN	
	<b>Examiner</b> Harold A. Hotelling	<b>Art Unit</b> 2164	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 July 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 - 39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 - 17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 18 - 39 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some    \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>October 19, 2006</u> . | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

This communication is in response to the application filed on August 25, 2003. The application has been examined. Claims 1 – 17, of which claim 1 is in independent form, are pending in this Office Action.

### ***Election / Restrictions***

The Office mailed out a restriction requirement on June 25, 2007 requiring the applicant to elect either claims 1 – 17 or 18 – 39 as required under 35 U.S.C. 121.

The applicant responded on July 25, 2007 by electing claims 1 – 17 with traverse.

### ***Information Disclosure Statement***

The information disclosure statement filed on October 19, 2006 is in compliance with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609. It has been placed in the application file and the information referred to therein has been considered as to the merits.

### ***Status of Claims***

Claims 1 – 17 are rejected under 35 U.S.C. 112, second paragraph. Claims 1 – 17 are rejected under 35 U.S.C. 103(a).

**35 U.S.C. §112, second paragraph rejection**

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 – 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention.

Claim 1, lines 2, 19 and 21 recite “operative of . . .” and “operative to . . .” The metes and bounds of claim 1 that the applicant intends is unclear, since claim 1 appears to cover anything and everything that is “operative of” or “operative to” perform the recited limitations.

**35 U.S.C. §103 rejection**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made:

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1 – 3, 5, 6, and 10 – 17

Claims 1 – 3, 5, 6, and 10 – 17 (effective filing date: August 25, 2003) are rejected under 35 USC 103 (a) as being obvious over Williams et al. (published application US 2005/0257267 A1) (effective filing date: Feb. 14, 2003) (hereafter “Williams”) in view of Lin (U.S. Patent number 6,542,508) (issued on April 1, 2003).

With respect to independent claim 1, Williams discloses **[a] system for synchronizing a plurality of network policies amongst a plurality of network nodes, the plurality of network policies operative of the plurality of nodes to regulate data traffic through the plurality of nodes** (paragraph [0010], lines 1 – 4: “the present invention is directed to a network auditing system for auditing the security of a data communications network. The system includes a first server configuring policies . . .”), **the system comprising:**

**an ordered plurality of classifications of the plurality of network policies** (paragraph [0080], lines 3 – 4: “The policy directory 60 may organize individual policies 76 into different policy categories.”), **the ordered plurality of classifications including**

**a first one or more classifications identifying policies enabling collusion between the plurality of network nodes** (paragraph [0080], lines 5 – 7: “a custom policy category 64 may include policies that have been customized to meet the needs of the particular global network.”) **to support a common database of network policies** (paragraph [0061], lines 1, 2 – 3, and 8 – 9: “The audit repository 14 stores . . . security

Art Unit: 2164

and regulatory policies, . . . The audit repository 14 may be implemented as part of the database server 11 . . .”),

**a plurality of local policy databases, each of the plurality of local policy databases residing on a respective node in the plurality of nodes** (paragraph [0062], first four lines: “The audit servers 12 are preferably strategically deployed around the global network to gather facts about wired 16 or wireless 22 local networks within the global network.”), **each of the local policy databases further including a plurality of policy instances operative on the respective node** (paragraph [0069], lines 1 – 4: “The P&V engine 34 analyzes data gathered by the audit servers 12 and determines whether the audited networks comply with established security and regulation policies.”); and

**a plurality of synchronization processes resident on the plurality of nodes, the plurality of synchronization processes operative to minimize a convergence time between the plurality of local databases and the common database of network policies** (paragraph [0062], lines 4 – 8: “the audit servers 12 are configured to gather facts relating to the wired and/or wireless 22 local networks using heterogeneous information sources. Such information sources may include scanners, . . .”) (paragraph [0062], lines 9 – 13: “The data gathered by each information source is converted . . . and stored in the audit repository 14 for access by the compliance server 10.”), **wherein the plurality of synchronization processes are further operative to map network policies received at the respective node to the ordered plurality of classifications** (paragraph [0207], lines 4 – 9: “an audit is generated by providing . . . a list of network

Art Unit: 2164

groups to be audited 704, an optional list of policies 706 selected from the policy directory 60 (FIG. 4) against which the audit is to be analyzed 706, and a selection of scanners 702 for performing the audit.”) (paragraph [0080], lines 3 – 4: “The policy directory 60 may organize individual policies 76 into different policy categories.”).

Williams does not appear to explicitly disclose:

**a second one or more classifications identifying policies for compressing or expanding information passed amongst the plurality of nodes,**

**a third one or more classifications including policies for route distribution and selection in the plurality of nodes;**

However, Lin discloses in column 1, lines 44 – 50: “the process of flow classification and action processing may repeat for many iterations as multiple policies are activated at the same time. For example, a VPN (virtual private network) application may comprise . . . IPCOMP (IP compression) policy, NAT (Network Address Translation) Policy, . . .”

Williams and Lin are analogous art because they are from the same field of endeavor: network policies. At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Williams and Lin before him or her, to modify the “policy directory 60” of Williams to include the “IPCOMP (IP compression) policy” and “NAT (Network Address Translation) Policy” of Lin because these two policies set rules for sending network packets to their correct destinations.

The suggestion for doing so would have been Lin, column 1, lines 38 – 41: “each packet compared with potentially hundreds of rules in order to find the matching one

and determine the proper action specifications.”

Therefore, it would have been obvious to combine Lin with Williams to obtain the invention as specified in claim 1.

With respect to dependent claim 2, Williams teaches **[t]he system of claim 1, wherein the plurality of nodes are distributed across one or more wide area networks** (paragraph [0059], lines 2 – 5: “The global network may include a plurality of internal networks 16 coupled to each other over a public internet 18 or a private wide area network 20.”).

With respect to dependent claim 3, Williams teaches **[t]he system of claim 1, wherein the plurality of nodes are at least partially packet-switched** (paragraph [0015]: “the one or more second servers are coupled to one or more dynamically configurable packet filters.”).

With respect to dependent claim 5, Williams teaches **[t]he system of claim 1, wherein the plurality of nodes at least partially overlap one or more autonomous systems** (paragraph [0062], first four lines: “The audit servers 12 are preferably strategically deployed around the global network to gather facts about wired 16 or wireless 22 local networks within the global network.”).

With respect to dependent claim 6, Williams teaches **[t]he system of claim 1,**



Art Unit: 2164

**wherein the plurality of nodes at least partially overlap two or more autonomous systems** (paragraph [0062], first four lines: “The audit servers 12 are preferably strategically deployed around the global network to gather facts about wired 16 or wireless 22 local networks within the global network.”).

With respect to dependent claim 10, Williams teaches **[t]he system of claim 1, wherein the first one or more classifications further identifies policies for validating network information exchanged amongst the plurality of nodes** (paragraph [0061], lines 1 – 3: “The audit repository 14 stores . . . security and regulatory policies, . . .”).

With respect to dependent claim 11, Williams teaches **[t]he system of claim 1, wherein the first one or more classifications further identifies policies for validating information exchanged amongst the plurality of nodes for security** (paragraph [0061], lines 1 – 3: “The audit repository 14 stores . . . security and regulatory policies, . . .”).

With respect to dependent claim 12, Williams teaches **[t]he system of claim 11, wherein the first one or more classifications further identifies policies for validating information exchanged amongst the plurality of nodes for conformance to syntax** (paragraph [0107], lines 4 – 7: “The scan harness 212 provides a common interface that allows the audit server 12 to uniformly communicate with the scanners,

even if they are heterogeneous in kind.”).

With respect to dependent claim 13, Williams teaches **[t]he system of claim 11, wherein the first one or more classifications further identifies policies for validating information exchanged amongst the plurality of nodes for appropriate syntax** (paragraph [0107], lines 4 – 7: “The scan harness 212 provides a common interface that allows the audit server 12 to uniformly communicate with the scanners, even if they are heterogeneous in kind.”).

With respect to dependent claim 14, Lin teaches **[t]he system of claim 11, wherein the first one or more classifications further identifies policies for ensuring that information received at the respective node has arrived intact from a trusted source** (column 3, lines 46 , 48 – 50: “The action specification 203b can be . . . as complicated as IPSec encryption rules based on a SA (Security Association) specification.”).

With respect to dependent claim 15, Williams teaches **[t]he system of claim 1, wherein the first one or more classifications further identifies policies for validating security of information exchanged amongst the plurality of nodes** (paragraph [0061], lines 1 – 3: “The audit repository 14 stores . . . security and regulatory policies, . . .”).

With respect to dependent claim 16, Williams teaches **[t]he system of claim 1, further comprising: a plurality of consistency enforcement processes resident on the plurality of nodes, the plurality of consistent enforcement processes ensuring internal consistency of the plurality of local databases** (paragraph [0062], lines 4 – 8: “the audit servers 12 are configured to gather facts relating to the wired and/or wireless 22 local networks using heterogeneous information sources. Such information sources may include scanners, . . .”) (paragraph [0069], first four lines: “The P&V engine 34 analyzes data gathered by the audit servers 12 and determines whether the audited networks comply with established security and regulation policies.”).

With respect to dependent claim 17, Williams teaches **[t]he system of claim 1, wherein each of the plurality of nodes includes one or more routers** (paragraph [0197], lines 1 and 3: “Exemplary host property specifications include . . . router host properties, . . .”).

#### Claim 4

Claim 4 (effective filing date: August 25, 2003) is rejected under 35 USC 103 (a) as being obvious over Williams et al. (published application US 2005/0257267 A1) (effective filing date: Feb. 14, 2003) (hereafter “Williams”) in view of Lin (U.S. Patent number 6,542,508) (issued on April 1, 2003), and further in view of the following web page published by Jeffrey K. MacKie-Mason and archived on January 15, 1998 (hereafter “JKMM”):

<http://web.archive.org/web/19980115173039/http://www.press.umich.edu/jep/works/node24.html>

Williams and Lin disclose **[t]he system of claim 1, . . .**

Williams and Lin do not appear to explicitly disclose **wherein the plurality of nodes are at least partially cell-switched.**

However, JKMM discloses in lines 3 – 4: “Cell switching closely resembles packet switching in that it breaks a data stream into packets which are then placed on lines that are shared by several streams.”

Williams, Lin, and JKMM are analogous art because they are from the same field of endeavor: network design. At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Williams, Lin, and JKMM before him or her, to modify the global network of Williams to include the cell switching of JKMM because the combination would have limited communication delays.

The suggestion/motivation for doing so would have been JKMM, lines 4 – 6: “One major difference is that cells have a fixed size while packets can have different sizes. This makes it possible in principle to offer bounded delay guarantees (since a cell will not get stuck for a surprisingly long time behind an unusually large packet).”

Therefore, it would have been obvious to combine JKMM with Williams and Lin to obtain the invention as specified in claim 4.

#### Claims 7 and 9

Claims 7 and 9 (effective filing date: August 25, 2003) are rejected under 35 USC 103 (a) as being obvious over Williams et al. (published application US 2005/0257267

A1) (effective filing date: Feb. 14, 2003) (hereafter "Williams") in view of Lin (U.S. Patent number 6,542,508) (issued on April 1, 2003), and further in view of MeLampy et al. (published application US 2002/0112073 A1)(published on August 15, 2002) (effective filing date: December 11, 2000) (hereafter "MeLampy").

Williams and Lin disclose **[t]he system of claim 1, . . .**

Williams and Lin do not appear to explicitly disclose **wherein the plurality of nodes communicate at least partially via an Interior Gateway Protocol and wherein the plurality of nodes communicate at least partially via Border Gateway Protocol (BGP).**

However, MeLampy discloses in paragraph [0014], last four lines: "In data networks, protocols such as border gateway protocol (BGP), interior gateway protocol (IGP), open shortest path first (OSPF), etc., are used to determine link states and routes."

Williams, Lin, and MeLampy are analogous art because they are from the same field of endeavor: network policies. At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Williams, Lin, and MeLampy before him or her, to modify the local networks of Williams to include the Interior Gateway Protocol and Border Gateway Protocol of MeLampy because the combination would have resulted in links between routers capable of communicating signals.

The suggestion for doing so would have been MeLampy, paragraph [0014], first four lines: "To ensure that the network elements (e.g., switches in the telephone

network, routers in the data network) can perform their associated tasks, they must know the status of adjacent communication links and available routes . . .”

Therefore, it would have been obvious to combine MeLampy with Williams and Lin to obtain the invention as specified in claims 7 and 9.

#### Claim 8

Claim 8 (effective filing date: August 25, 2003) is rejected under 35 USC 103 (a) as being obvious over Williams et al. (published application US 2005/0257267 A1) (effective filing date: Feb. 14, 2003) (hereafter “Williams”) in view of Lin (U.S. Patent number 6,542,508) (issued on April 1, 2003), and further in view of MeLampy et al. (published application US 2002/0112073 A1)(published on August 15, 2002) (effective filing date: December 11, 2000) (hereafter “MeLampy”).

Williams and Lin disclose **[t]he system of claim 1, . . .**

Williams and Lin do not appear to explicitly disclose **wherein the plurality of nodes communicate at least partially via an Exterior Gateway Protocol.**

However, MeLampy discloses in paragraph [0055], lines 8 – 12: “As known in the art, an autonomous system is a set of routers under a single technical administration, using an interior gateway protocol and common metrics to route packets within the AS, and using an exterior gateway protocol . . .”

Williams, Lin, and MeLampy are analogous art because they are from the same field of endeavor: network policies. At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Williams, Lin, and

MeLampy before him or her, to modify the local networks of Williams to include the Exterior Gateway Protocol of MeLampy because the combination would have resulted in links between networks capable of communicating signals.

The suggestion for doing so would have been MeLampy, paragraph [0055], lines 12 – 13: “. . . to route packets to other [Autonomous Systems]”

Therefore, it would have been obvious to combine MeLampy with Williams and Lin to obtain the invention as specified in claim 8.

#### ***Contact Information***

The prior art made of record, listed on form PTO-892, and not relied upon, if any, is considered pertinent to the applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Harold A. Hotelling whose telephone number is (571) 270-1293. The examiner can normally be reached between 7:00 a.m. - 5:30 p.m. Monday through Thursday.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Rones, can be reached on (571) 272-4085. The fax phone number for the organization where this application or proceeding is assigned is 703-837-8902.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

Art Unit: 2164

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Harold A. Hotelling  
Examiner  
Art Unit 2164

HAH   
August 23, 2007

  
CHARLES RONES  
SUPERVISORY PATENT EXAMINER

